

# FY 01 CALENDAR (OCTOBER 2000 - SEPTEMBER 2001)

KIM EARNSHAW, COORDINATOR 757-1009

ENGINEERING & SCIENCES	COST	COURSE DATES AND COURSE CODES											
		OCT 00	NOV 00	DEC 00	JAN 01	FEB 01	MAR 01	APR 01	MAY 01	JUN 01	JUL 01	AUG 01	SEP 01
Airborne Systems Test and Evaluation	\$5690		06-20 487241						07-18 487242				
Airplane Design	\$1700				08-12 486587								
Airworthiness Training	\$175	26 484512			25 484513			26 484515			26 484517		
Basic Acoustics	\$800									04-05 486569			
Basic Sonar and Underwater Acoustics I	\$800		28-29 488779										
Basic Sonar and Underwater Acoustics II	\$800		30 Nov-01 Dec 488780										
Calculus Refresher	\$800		06-07 486579								09-10 486581		
Class Desk Orientation	None		27-30 483619				26-29 483620				23-26 483621		
Corrosion of Aging Aircraft	\$1700			11-14 488703									
Crewstation Analysis	\$760			04-08 486871						18-22 486872			
Differential Equations Refresher	\$800		08-09 486576										
Digital Avionics Systems	\$1635									25-29 491108			
Digital Flight Control Systems: Analysis and Design	\$1350									11-15 486586			
EMI/EMC Test Techniques & Theory	\$1395						05-09 488227						
Flight Test Principles and Practices	\$1425						05-09 486585						
GPS Short Course	TBD	To be Determined											
Infrared Imaging Systems: An Intro	\$890					26-27 488226							
Intellectual Property & Technology Transfer	None	12 487926				01 487927			03 487928			02 487929	
Intro to Airplane Flying Qualities	\$4340		27 Nov-08 Dec 487243				09-20 487244						
Intro to Flight Test	\$4450						05-16 487245						10-21 487246

ENGINEERING & SCIENCES (Contd)	COST	COURSE DATES AND COURSE CODES											
		OCT 00	NOV 00	DEC 00	JAN 01	FEB 01	MAR 01	APR 01	MAY 01	JUN 01	JUL 01	AUG 01	SEP 01
Linear Algebra Refresher	\$800									06-07 488782			
Mathematica Tutorial Part I	\$800				03-04 488781								
Mathematica Tutorial Part II	\$800						01-02 488978						
MATLAB Fundamentals	\$1000				29-30 487655						30-31 487656		
MIL-STD 1553 Multiplex Bus	\$850		14-16 486663						01-03 486664				
MIL-STD 1773	\$150		17 486898						04 486899				
Partial Differential Equations Refresher	\$800			06-07 486571									
Simulink	\$1000				31 Jan-01 Feb 487657							01-02 487658	
Statistics and Probability Refresher	\$800			04-05 486574							11-12 486575		
Vibration Spectrum Analysis	\$1400				29 Jan-01 Feb 487221					25-28 487223			
Weibull/Log Normal Analysis Workshop	\$1100							30 Apr-03 May 488139					

<b>COURSE TITLE:</b>	<b>AIRBORNE SYSTEMS TEST AND EVALUATION</b>	
<b>VENDOR:</b>	United States Naval Test Pilot School	
<b>LOCATION:</b>	United States Naval Test Pilot School	
<b>COURSE CODE:</b> 487241 487242	<b>DATE:</b> 06-20 November 00 07-18 May 01	<b>NOMINATION DEADLINE:</b> 13 October 00 06 April 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	<p>Topics include:</p> <ul style="list-style-type: none"> <li>?? Review of Report Writing</li> <li>?? Review of the Research and Evaluation Paragraph</li> <li>?? Airborne Systems Basics and Flight Test Techniques <ul style="list-style-type: none"> <li>?? Radar Theory</li> <li>?? Electro-Optical Theory</li> <li>?? Navigation System Theory</li> <li>?? Software Test and Evaluation</li> </ul> </li> <li>?? Integrated Systems Testing <ul style="list-style-type: none"> <li>?? Test Design</li> <li>?? Safety and Technical Review</li> </ul> </li> <li>?? Flying the Test <ul style="list-style-type: none"> <li>?? Each student will conduct a radar, navigation and electro - optical integrated systems flight on the Airborne Systems Test and Research Support Airplane (ASTARS).</li> </ul> </li> <li>?? Analysis of Results</li> <li>?? Data Presentation</li> </ul>	
<b>OBJECTIVE:</b>	<p>At the completion of this course, participants will:</p> <ul style="list-style-type: none"> <li>?? Understand the theory of radar, navigation, and electro - optical systems individually and as part of an integrated system.</li> <li>?? Design and execute an integrated systems test plan.</li> <li>?? Report on test results both orally and several written formats.</li> </ul>	
<b>AUDIENCE:</b>	Engineers and scientists involved in the test and evaluation of airborne systems.	
<b>NOMINATIONS:</b>	<p>Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact. The training contact forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).</p>	

<b>COURSE TITLE:</b>	<b>AIRPLANE DESIGN</b>	
<b>VENDOR:</b>	The University of Kansas Continuing Education 12600 Quivira Road Overland Park, KS 66213-2402	
<b>LOCATION:</b>	Patuxent River, MD	
<b>COURSE CODE:</b> 486587	<b>DATE:</b> 08-12 January 01	<b>NOMINATION DEADLINE:</b> 03 November 00
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	Overview of the process of airplane configuration design in view of civil and military airworthiness regulations and in response to a given mission specification. Considerations include: drag polar estimation, fundamentals of flight mechanics, sizing requirements, configuration layout design, weight and balance properties, landing gear, flight control systems, fuel systems, hydraulic systems, electrical systems, environmental control systems, cockpit systems, escape systems, and design-to-cost.	
<b>AUDIENCE:</b>	Aeronautical engineers, pilots with some engineering background, and engineering managers.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1700 per person	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>AIRWORTHINESS TRAINING</b>	
<b>VENDOR:</b>	Airworthiness/Flight Clearance AIR – 4.3P Patuxent River, MD 20670	
<b>LOCATION:</b>	Patuxent River, MD	
<b>COURSE CODE:</b> 484512 484513 484515 484517	<b>DATE:</b> 26 October 00 25 January 01 26 April 01 26 July 01	<b>NOMINATION DEADLINE:</b> 12 October 00 22 December 00 26 March 01 26 June 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	This course provides Project Officers, Project Managers, Project Engineers, and other personnel a working knowledge and a comprehensive understanding of the Airworthiness process. The course will define flight clearance requirements and what a flight clearance can authorize. This course will also explain the Naval Instruction that governs the Flight Clearance process: NAVAIRINST 13034.1A.	
<b>OBJECTIVE:</b>	At the completion of this course the participants should be able to: ?? Understand Airworthiness policies and procedures. ?? Know when a flight clearance is required. ?? Draft a flight clearance request. ?? Understand how to define data requirements. ?? Understand formal engineering airworthiness review process and time requirements. ?? Know the standard seven part message format for requests and flight clearances. ?? Know the NAVAIR/flight clearance points of contact.	
<b>AUDIENCE:</b>	Officers, Engineers, Technicians, and Managers who may be required to review flight clearances and flight clearance requests.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
<b>COST:</b>	\$175	

<b>COURSE TITLE:</b>	<b>BASIC ACOUSTICS</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODES:</b> 486569	<b>DATES:</b> 04-05 June 01	<b>NOMINATION DEADLINES:</b> 04 May 01
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This course provides an introductory overview of acoustics. Elements covered will include: acoustic waves in fluids and structures; plane and spherical waves; acoustic sensors and sources; wave and radiation impedance concepts; reference levels and dB scale; sound reflection, transmission, and refraction; Snell's law and coincident effect; sound radiation, source level and radiated power; directivity of simple sound sources and receivers; and acoustics filters, Helmholtz resonators and ducts.	
<b>OBJECTIVE:</b>	Emphasis is placed on illustrating phenomena and principles through demonstrations and examples from common experience. Topics are presented with a minimum of mathematics.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>BASIC SONAR &amp; UNDERWATER ACOUSTICS I</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODES:</b> 488779	<b>DATES:</b> 28-29 November 00	<b>NOMINATION DEADLINES:</b> 10 November 00
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This course provides an introductory overview of passive sonar and underwater acoustics. Topics include: acoustic waves in Sea Water, dB scales; sound velocity profiles; underwater sound propagation; cavitation threshold; ambient, self and radiated noise; octave and narrow band analysis; sonar transducers and arrays; passive sonar equation and signal processing; detection threshold concepts; figure of merit and range considerations; and other topics of interest to course participants.	
<b>OBJECTIVE:</b>	Emphasis is placed on illustrating phenomena and principles through demonstrations and examples from common experience. Topics are presented with a minimum of mathematics.	
<b>AUDIENCE:</b>	This course is intended for anyone with a desire to learn about sonar acoustics, or anyone in need of a refresher.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>BASIC SONAR &amp; UNDERWATER ACOUSTICS II</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODES:</b> 488780	<b>DATES:</b> 30 November – 01 December 00	<b>NOMINATION DEADLINES:</b> 10 November 00
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This course provides an introductory overview of active sonar and underwater acoustics. Topics include: reflection, refraction, and scattering; convergence zones; sound channels; surface effects; bottom effects; shallow water and littoral ASW considerations; active sonar equation and signal processing; range -Doppler representation, ambiguity; reverberation; target strength; and other topics of interest to course participants.	
<b>OBJECTIVE:</b>	Emphasis is placed on illustrating phenomena and principles through demonstrations and examples from common experience. Topics are presented with a minimum of mathematics.	
<b>AUDIENCE:</b>	This course is intended for anyone with a desire to learn about sonar acoustics, or anyone in need of a refresher.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>CALCULUS REFRESHER</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODES:</b> 486579 486581	<b>DATES:</b> 06-07 November 00 09-10 July 01	<b>NOMINATION DEADLINES:</b> 20 December 00 11 June 01
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This refresher course will cover the areas of analytic geometry; differential calculus; derivatives of algebraic functions; maximum & minimum extremes; related rates problems; integration; substitution, by-parts & partial fractions techniques; and engineering applications of integration.	
<b>OBJECTIVE:</b>	Emphasis is placed on how to use math as a tool to set up and interpret engineering problems. Students review representative problems and discuss their results in class.	
<b>AUDIENCE:</b>	This course is intended for those taking technical classes, pursuing either graduate or undergraduate studies, or just desiring a refresher.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>CLASS DESK ORIENTATION</b>	
<b>VENDOR:</b>	AIR 4.1 Naval Air Systems Command Patuxent River, Maryland 20670	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODE:</b> 483619 483620 483621	<b>DATE:</b> 27-30 November 00 26-29 March 01 23-26 July 01	<b>NOMINATION DEADLINE:</b> 05 October 00 26 February 01 25 June 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	This course provides a description of the roles and responsibilities for personnel assigned as Assistant Program Manager for Systems Engineering (Class Desk) within a competency aligned organization, and the role of systems engineering in acquisition. Modules covering associated processes are presented including decision milestones, the POM and budget, product integrity, design reviews, software management, test and evaluation, airworthiness, grounding bulletins and red stripes, engineering investigations and hazard material reports, technical directives and bulletins, risk management, cost and earned value management, configuration management, air vehicle engineering, NAVAIR initiatives, and acquisition process overview.	
<b>OBJECTIVE:</b>	To provide basic skills and knowledge to enhance the performance of personnel newly assigned as assistant program manager for systems engineering (Class Desk).	
<b>AUDIENCE:</b>	Personnel newly assigned to class desks and supporting government and contract personnel. Other employees are welcome subject to space availability.	
<b>PREREQUISITE:</b>	None	
<b>LENGTH:</b>	3 ½ Days	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	None	

<b>COURSE TITLE:</b>	<b>CORROSION OF AGING AIRCRAFT</b>	
<b>VENDOR:</b>	University of California, Los Angeles Continuing Education and UCLA Extension 10995 Le Conte Avenue Los Angeles, CA 90024-2883	
<b>LOCATION:</b>	Patuxent River, MD	
<b>COURSE CODE:</b> 488703	<b>DATE:</b> 11-14 December 00	<b>NOMINATION DEADLINE:</b> 10 November 00
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	This course presents both fundamental principles and practical instruction in corrosion theory and control as it applies to aircraft airframe corrosion. The subject of high-temperature corrosion of components is introduced, and the lectures emphasize corrosion events viewed from time-dependent, time-related, and time-independent mechanisms. The specific types of corrosion are noted for their severity, frequency, and cycle dependency. Time-dependent corrosion such as pitting, exfoliation, and crevice corrosion will, if not prevented or controlled, accumulate to unsafe limits. With time, corrosion can cause both internal and external airframe structures and engine components to degrade to unacceptable limits. The effects of corrosion, however, are not just time-dependent but can affect airworthiness at any age. The events of environmental embrittlement, including stress corrosion cracking, can occur anytime, producing failure without warning.	
<b>AUDIENCE:</b>	Engineers and technicians interested in the effects of corrosion on aircraft.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1700 per person	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>CREWSTATION ANALYSIS</b>	
<b>VENDOR:</b>	United States Naval Test Pilot School	
<b>LOCATION:</b>	U.S. Naval Test Pilot School, Building #2168	
<b>COURSE CODE:</b> 486871 486872	<b>DATE:</b> 04-08 December 00 18-22 June 01	<b>NOMINATION DEADLINE:</b> 03 November 00 18 May 01
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	<p>Topics include:</p> <ul style="list-style-type: none"> <li><del>///</del> Introductory Concepts (Systems Engineering)</li> <li><del>///</del> Anthropometry</li> <li><del>///</del> Static Analysis Techniques</li> <li><del>///</del> Sensory Perception</li> <li><del>///</del> Information Processing</li> <li><del>///</del> Applications to Displays and Controls</li> <li><del>///</del> Mental Workload Measures</li> <li><del>///</del> Psychomotor Work</li> <li><del>///</del> Task Analysis</li> <li><del>///</del> Decision-making</li> <li><del>///</del> Operator Interfaces</li> <li><del>///</del> Human Performance in Extreme Environments</li> <li><del>///</del> Dynamic Crewstation Analysis Techniques</li> </ul> <p>Two 3-hour practical exercises on USNTPS simulators/aircraft are incorporated to reinforce the classroom lectures.</p>	
<b>OBJECTIVE:</b>	At the completion of this course, participants will have a fundamental understanding of basic human factors considerations in order to enable safe and effective planning, direction, and execution of assessments of aircraft crewstations	
<b>AUDIENCE:</b>	Engineers and scientists involved in the test and evaluation of aircraft crewstations.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact. The training contact forwards the request to the Employee Development Division via the Training Information Processing System (TIPS).	
<b>COST:</b>	\$760	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	
For more information, please contact the Short Course Department at the United States Naval		

<b>COURSE TITLE:</b>	<b>DIFFERENTIAL EQUATIONS REFRESHER</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODES:</b> 486576	<b>DATES:</b> 08-09 November 00	<b>NOMINATION DEADLINES:</b> 12 October 00
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This refresher course will cover the areas of linear first & second order differential equations; homogeneous and non-homogeneous equations; initial and boundary value problems; systems of ordinary linear differential equations; laplace transforms with method of residue; state variables formulation of simple systems; and engineering applications such as heat transfer, fluid dynamics, electrical circuits, control systems, and mechanical vibrations.	
<b>OBJECTIVE:</b>	Emphasis is placed on how to use math as a tool to set up and interpret engineering problems. Students review representative problems and discuss their results in class.	
<b>AUDIENCE:</b>	This course is intended for those taking technical classes, pursuing either graduate or undergraduate studies, or just desiring a refresher.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors can attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>DIGITAL AVIONICS SYSTEMS</b>	
<b>VENDOR:</b>	University of California, Los Angeles Continuing Education and UCLA Extension 10995 Le Conte Avenue Los Angeles, CA 90024-2883	
<b>LOCATION:</b>	Patuxent River, Maryland	
<b>COURSE CODE:</b> 491108	<b>COURSE DATES:</b> 25-29 June 01	<b>NOMINATION DEADLINE:</b> 25 May 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	The course begins with avionics system design requirements in the context of aircraft/mission objectives and standards and the use of top-level design tools. The building blocks of a avionics system data-busses, displays, and power are presented with an emphasis on emerging concepts. The principles of reliability, maintainability, and fault tolerance are also discussed. Digital avionics systems in current and future aircraft are reviewed to gain insight into real-world practices. The course concludes with a detailed analysis of costs and an overview of selected emerging avionics topics.	
<b>AUDIENCE:</b>	Specialists who need to broaden their avionics perspective; managers and technical personnel who require a broad overview of leading-edge avionics; research and development personnel working on dual use of military and civilian technologies in avionics.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1635 per person	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>DIGITAL FLIGHT CONTROL SYSTEMS</b>	
<b>VENDOR:</b>	The University of Kansas Continuing Education 12600 Quivira Road Overland Park, KS 66213-2402	
<b>LOCATION:</b>	Patuxent River, Maryland	
<b>COURSE CODE:</b> 486586	<b>DATE:</b> 11-15 June 01	<b>NOMINATION DEADLINE:</b> 06 April 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	This course presents classical and modern analysis and design tools that result in real-world implementable flight control systems. These techniques will be illustrated using simulation and flight test results. The curriculum includes: problem definition, vehicle equations of motion, sampled data control systems, optimal regulator, command generator trackers, proportional integral control, proportional integral filter control, outback feedback problem, estimation theory, stochastic optimal output feedback, robustness analysis, implementation issues, and an introduction to additional modern design methods.	
<b>AUDIENCE:</b>	Aeronautical and control systems engineers.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1350 per person	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>ELECTROMAGNETIC INTERFERENCE AND COMPATABILITY (EMI/EMC)</b>	
<b>VENDOR:</b>	The George Washington University Continuing Engineering Education Program 2029 K Street, N.W., Suite 600 Washington, D.C. 20052	
<b>LOCATION:</b>	Patuxent River, Maryland	
<b>COURSE CODE:</b> 488227	<b>DATE:</b> 05-09 March 01	<b>NOMINATION DEADLINE:</b> 05 January 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	This course presents a comprehensive review and the practical aspects of electromagnetic interference and electro-magnetic compatibility (EMI/EMC) testing under MIL-STD 461, 462, and 464, their application to the design, development, test, and procurement of military electronic systems. Techniques for suppressing EMI including design and retro fits are discussed. Although some mathematical formulas are used, the course emphasizes the practical use of military standards. Basic principles are briefly reviewed at the beginning of the course.	
<b>AUDIENCE:</b>	Electrical engineers and technicians.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1395 per person	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>FLIGHT TEST PRINCIPLES AND PRACTICES</b>	
<b>VENDOR:</b>	The University of Kansas Continuing Education 12600 Quivira Road Overland Park, KS 66213-2402	
<b>LOCATION:</b>	Patuxent River, Maryland	
<b>COURSE CODE:</b> 486585	<b>DATE:</b> 05-09 March 01	<b>NOMINATION DEADLINE:</b> 05 January 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	This course is an introduction to flight test process, principles and practices. Course topics include: Basic concepts and preflight tests, time-space positioning, mass properties, air speed calibration, aircraft performance and propulsion principles, propulsion system testing, level flight cruise performance tests, stall testing, static stability and control , noise, structural load tests, special testing, and avionics systems and tests.	
<b>AUDIENCE:</b>	Engineers and technicians.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1425 per person	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>INFRARED IMAGING SYSTEMS: AN INTRODUCTION</b>	
<b>VENDOR:</b>	The George Washington University Continuing Engineering Education Program 2029 K Street, N.W., Suite 600 Washington, D.C. 20052	
<b>LOCATION:</b>	Patuxent River, Maryland	
<b>COURSE CODE:</b> 488226	<b>DATE:</b> 26-27 February 01	<b>NOMINATION DEADLINE:</b> 22 December 00
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	This course presents background information on light characteristics, two-dimensional mathematics, linear shift invariant systems and diffraction. Infrared systems components such as radiation sources, atmospheric, optics, detectors, electronics, and human vision are reviewed. System-level performance, including system resolution and sensitivity parameters, is discussed. Finally, design, with emphasis on sensitivity, resolution, coverage, and throughput, is introduced. Examples of progress in infrared imagers, from older to state-of-the-art systems, are presented.	
<b>AUDIENCE:</b>	Engineers and scientists.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$890 per person	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER</b>	
<b>VENDOR:</b>	Office of Counsel and Office of Research and Technology Applications Naval Air Warfare Center Aircraft Division Patuxent River, MD 20670	
<b>LOCATION:</b>	Patuxent River, Maryland	
<b>COURSE CODE:</b> 487926 487927 487928 487929	<b>DATE:</b> 12 October 00 01 February 01 03 May 01 02 August 02	<b>NOMINATION DEADLINE:</b> 14 September 00 04 January 01 05 April 01 05 July 01
<b>TIME:</b>	0900-1200	
<b>DESCRIPTION:</b>	<p>Students will develop an understanding of technology transfer, the process in which technology or knowledge developed in one place or for one purpose is applied and exploited in another place for some other purpose. Within the Department of Defense, this process often refers to transfers occurring between federal laboratories and any nonfederal organization, including private industry, academia, and state and local governments, but can occur between federal agencies.</p> <p>Students will learn about the specific mechanisms used for technology transfer, the legal issues associated with each, how an employee's innovation may be an invention that could be patented, and how and why intellectual property must be protected. They will also become acquainted with the NAWCAD Patuxent River Office of Research and Technology Applications (ORTA) and its role in implementing technology transfer at the command, and with the Office of Counsel and its responsibilities in protection of intellectual property.</p>	
<b>OBJECTIVE:</b>	<p>At the completion of the course, participants will understand:</p> <ul style="list-style-type: none"> <li>?? Inventions and patents.</li> <li>?? Methods to accomplish technology transfer.</li> <li>?? Patent Licensing.</li> <li>?? Cooperative research and development agreement.</li> <li>?? Commercial service agreement.</li> <li>?? Memorandum of agreement.</li> <li>?? Command processes and offices involved in technology</li> </ul>	

<b>COURSE TITLE:</b>	<b>INTRODUCTION TO AIRPLANE FLYING QUALITIES</b>	
<b>VENDOR:</b>	United States Naval Test Pilot School	
<b>LOCATION:</b>	United States Naval Test Pilot School	
<b>COURSE CODE:</b> 487243 487244	<b>DATE:</b> 27 November-08 December 00 09-20 April 01	<b>NOMINATION DEADLINE:</b> 20 November 00 09 March 00
<b>TIME:</b>	Classes will be held in the morning Flights and labs will be scheduled throughout the day as required by course enrollment	
<b>DESCRIPTION:</b>	<p><u>Week One:</u>  Aerodynamics Summary  Longitudinal Statics  Non-Maneuvering Flight Characteristics  Maneuvering Flight Characteristic s  Flight Controls  Aerodynamic Non-linearity  Lateral Directional Statics  Simulation Exercises 1  Static longitudinal, non-maneuvering and maneuvering  Static lateral-directional  Longitudinal Dynamics  Longitudinal Dynamic Modes  Longitudinal Transfer Modes  Lateral-Directional Dynamic Modes  Lateral-Directional Transfer Functions</p> <p><u>Week Two:</u>  Longitudinal Handling Qualities/Testing  Lateral-directional Handling Qualities/Testing  Simulation Exercises 2  Longitudinal dynamic modes  Lateral-directional dynamic modes  Pilot Handling Qualities Evaluation Process  Military Specifications and Standards  Advanced Flight Control Systems</p> <p>This course includes two demonstration flights.</p>	
<b>AUDIENCE:</b>	Engineers and scientists involved in the test and evaluation of flight control systems.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with	

<b>COURSE TITLE:</b>	<b>INTRODUCTION TO FLIGHT TEST</b>	
<b>VENDOR:</b>	United States Test Pilot School	
<b>LOCATION:</b>	United States Test Pilot School	
<b>COURSE CODE:</b>	<b>DATE:</b>	<b>NOMINATION DEADLINE:</b>
487245	05-16 March 01	05 February 01
487246	10-21 September 01	10 August 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	<p>Topics to be covered during the course include:</p> <ul style="list-style-type: none"> <li>?? The Acquisition Process</li> <li>?? The Test Planning Process</li> <li>?? Report Writing <ul style="list-style-type: none"> <li>The Research and Evaluation Paragraph</li> <li>Types of Reports</li> </ul> </li> <li>?? The DT-OT Transition Report</li> <li>?? Flight Clearances</li> <li>?? Data Collection and Instrumentation</li> <li>?? Airborne Systems Basics and Flight Test Techniques</li> <li>?? Introduction to Fixed and Rotary -wing Testing</li> <li>?? Test Planning an Inertial Navigation System Evaluation <ul style="list-style-type: none"> <li>Flight Briefing</li> <li>Test Design</li> <li>Data Collection</li> <li>Safety and Technical Review</li> </ul> </li> <li>?? Flying the Test</li> <li>?? Analysis of Results</li> <li>?? Data Presentation</li> <li>?? Naval Air Systems Command Ranges and Facilities</li> </ul> <p>This course includes a navigation evaluation flight in the USNTPS Airborne Systems Test and Research Support aircraft. Medical screening will be conducted during the first week of the course. For individuals with questions concerning this process, please contact the USNTPS Short Course Staff at the number below.</p>	
<b>AUDIENCE:</b>	<p>The intended audience for this course is personnel involved in rotary-wing, fixed-wing or systems flight testing. This course is intended to provide the working level engineer with the information necessary to plan, brief, conduct, debrief and analyze flight test results.</p>	
<b>NOMINATIONS:</b>	<p>Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training</p>	

<b>COURSE TITLE:</b>	<b>LINEAR ALGEBRA REFRESHER</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODES:</b> 488782	<b>DATES:</b> 06-07 June 01	<b>NOMINATION DEADLINES:</b> 04 May 01
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This course provides a basic introductory overview of linear algebra and matrix analysis techniques used in engineering. Basic concepts are developed and explored through examples and geometrical interpretations. Topics include: a review of basic vector and matrix algebra; systems of linear equations; linear transforms; eigen-value and eigen-vectors problems; inverse matrix and determinants. Engineering applications include: engineering mechanics and vibrations; electrical circuits; state variables and control systems; signal processing; linear programming and numerical analysis; system reliability.	
<b>OBJECTIVE:</b>	Emphasis is placed on how to use math as a tool to set up and interpret engineering problems. Students review problems and discuss their results in class.	
<b>AUDIENCE:</b>	This course is intended for those taking technical classes, pursuing graduate or undergraduate studies, or desiring a review or introductory overview.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>MATHEMATICA TUTORIAL PART 1</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODES:</b> 488781	<b>DATES:</b> 03-04 January 01	<b>NOMINATION DEADLINES:</b> 01 December 00
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This course provides an overview of basic Mathematica concepts and techniques for engineers and scientists. Topics include: conducting simple numerical calculations; performing basic mathematical operations; solving equations; examining algebraic formulae and symbolic computations; creating lists (arrays) and producing graphics. The instructors will share valuable insights on coding and "lessons learned" from personal experience as well as provide tips on available online resources and assistance.	
<b>OBJECTIVE:</b>	For participants to become comfortable using basic Mathematica notebooks.	
<b>AUDIENCE:</b>	This course is intended for engineers and scientist who use, or would like to use, Mathematica.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>MATHEMATICA TUTORIAL PART 2</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODES:</b> 488978	<b>DATES:</b> 01-02 March 01	<b>NOMINATION DEADLINES:</b> 02 February 01
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This course builds on the material presented in Mathematica Part 1. Topics include: formation of Mathematica expressions and functions; differentiation and integration; procedural programming; input and output formats. Participants will develop and program Mathematica functions for use in engineering applications identified in the Mathematica Part 1 course.	
<b>OBJECTIVE:</b>	For participants to become comfortable using Mathematica to solve, graph, and analyze basic problems.	
<b>AUDIENCE:</b>	This course is intended for engineers and scientist who use, or would like to use, Mathematica and either have a strong familiarity with Mathematica or have completed Part 1.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>MATLAB FUNDAMENTALS</b>	
<b>VENDOR:</b>	Mathworks 3 Apple Hill Drive Natick, MA 01760-2098	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODE:</b>	<b>DATE:</b>	<b>NOMINATION DEADLINE:</b>
487655	29-30 January 01	22 December 00
487656	30-31 July 01	29 June 01
<b>TIME:</b>	8:00 a.m.-4:00 p.m.	
<b>DESCRIPTION:</b>	A two-day, hands-on course designed to provide a comprehensive understanding of MATLAB as a programming language. The course covers working with matrices, data manipulation, graphical visualization, and programming. Additional course topics include file I/O, advanced data types, and Handle Graphics.	
<b>PREREQUISITES:</b>	Experience with basic computer operations and familiarity with linear algebra.	
<b>AUDIENCE:</b>	Beginner through intermediate MATLAB users.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact. The training contact forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1000	
<b>METHOD OF PAYMENT:</b>	Vendor accepts GCPC (Governmentwide Commercial Purchase Card). EMPLOYEE must circle "V" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>MIL-STD-1553-MULTIPLEX BUS</b>	
<b>VENDOR:</b>	Test Systems, Inc. 217 W Palmaire Phoenix, AZ 85021	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODE:</b> 486663 486664	<b>DATE:</b> 14-16 November 00 01-03 May 01	<b>NOMINATION DEADLINE:</b> 15 October 00 02 April 01
<b>TIME:</b>	8:00 a.m.-4:00 p.m.	
<b>DESCRIPTION:</b>	<p>The MIL-STD-1553 data bus is presently used in many advanced military programs and is also used to update systems in older programs. The applications are expanding rapidly requiring more trained engineers to deal with the technology. This 3-day seminar presents a thorough discussion of MIL-STD-1553 theory, application and testing. Two lab sessions illustrate the material being taught by providing students with "hands on" experience in identifying 1553 communication and trouble shooting remote terminal problems. Both experienced 1553 personnel and novices will find the seminar profitable.</p>	
<b>OBJECTIVE:</b>	<p>By the end of the course, each participant will be able to:</p> <ul style="list-style-type: none"> <li>?? State the definition of basic 1553 terms, data bus operation, date encoding, word sync, word forms, message formats, intermessage gap and response time.</li> <li>?? Understand MIL-STD-1553 Protocol including: Command. Word, Mode Codes, Mode Command Formats, Data Word Status Word, and Message Error Bit.</li> <li>?? Describe MIL-STD-1553 Hardware Characteristics.</li> <li>?? Describe System and Software Designs associated with MIL-STD-1553 data buses.</li> <li>?? Understand the philosophy of testing and phases of testing.</li> <li>?? State test requirements and test equipment requirements.</li> </ul>	
<b>AUDIENCE:</b>	Engineers, Technicians, System Designers and Managers who may be required to specify, design or test of systems employing the standard. Those attending should have a general knowledge of how digital busses work.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations	

<b>COURSE TITLE:</b>	<b>MIL-STD 1773</b>	
<b>VENDOR:</b>	Test Systems, Inc. 217 W. Palmaire Phoenix, AZ 85021	
<b>LOCATION:</b>	Pax River	
<b>COURSE CODE:</b> 486898 486899	<b>DATE:</b> 17 November 00 04 May 01	<b>NOMINATION DEADLINE:</b> 19 October 00 06 April 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	<p>This course includes:</p> <ul style="list-style-type: none"> <li>?? Introduction to MIL-STD 1773 <ul style="list-style-type: none"> <li>-- Overview and history</li> </ul> </li> <li>?? Media Components: <ul style="list-style-type: none"> <li>-- Brief description of components,</li> <li>-- Relevant properties and features, and</li> <li>-- Performance criteria</li> </ul> </li> <li>?? Media Design: <ul style="list-style-type: none"> <li>-- Topology choices,</li> <li>-- Hybrid Systems,</li> <li>-- Receiver and transmitter design, and</li> <li>-- Active components</li> </ul> </li> <li>?? System Testing &amp; Diagnostics <ul style="list-style-type: none"> <li>-- Measurement methods</li> </ul> </li> <li>?? Media Installation Considerations <ul style="list-style-type: none"> <li>-- Cable assembly &amp; installation considerations</li> </ul> </li> <li>?? Radiation Effects</li> <li>?? 1773 ENHANCEMENTS <ul style="list-style-type: none"> <li>-- Multiple speed data rate transmission</li> </ul> </li> </ul>	
<b>AUDIENCE:</b>	Engineers, technicians, system designers and managers who may be required to specify, design or test systems employing the standard.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors should contact the vendor directly to obtain a seat.	
<b>COST:</b>	\$150 per person	

<b>COURSE TITLE:</b>	<b>PARTIAL DIFFERENTIAL EQUATIONS REFRESHER</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Patuxent River, Building #1489	
<b>COURSE CODES:</b> 486571	<b>DATES:</b> 06-07 December 00	<b>NOMINATION DEADLINES:</b> 13 October 00
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This refresher course will cover the areas of ordinary differential equations; boundary value problems; Fourier and other orthogonal series; separation of variables, Eigenfunction expansions; vector analysis and Green's function; integral transform techniques; and engineering applications including structural vibrations, model analysis, heat transfer; fluids dynamics; sound waves, and wave guides.	
<b>OBJECTIVE:</b>	Emphasis is placed on how to use math as a tool to set up and interpret engineering problems. Student s review representative problems and discuss their results in class.	
<b>AUDIENCE:</b>	This course is intended for those taking technical classes, pursuing either graduate or undergraduate studies, or just desiring a refresher.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>SIMULINK</b>	
<b>VENDOR:</b>	Mathworks, Inc. 3 Apple Hill Drive Natick, MA 01760	
<b>LOCATION:</b>	Patuxent River, Maryland	
<b>COURSE CODE:</b> 487657 487658	<b>DATE:</b> 31 January–01 February 01 01-02 August 01	<b>NOMINATION DEADLINE:</b> 21 December 00 29 June 01
<b>TIME:</b>	0800-1530	
<b>DESCRIPTION:</b>	Simulink is a two-day, hands-on course that covers the basics of working with Simulink, an interactive, graphical environment used to model and simulate dynamic systems. The course covers all aspects of system modeling with Simulink, from creating a model and simulating the system to analyzing results. The final section discusses refining the models you have created by adding functionality with S-functions, masking blocks, and creating graphical user interfaces for interaction with your system. Related products that assist in DSP and communication system design, control system design, and rapid prototyping methods are also discussed.	
<b>AUDIENCE:</b>	Anyone with MATLAB basic skills who requires or desires use of Simulink.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractor may attend on a space available basis.	
<b>COST:</b>	\$1000 per person	
<b>METHOD OF PAYMENT:</b>	Vendor accepts GCPC (Governmentwide Commercial Purchase Card). EMPLOYEE must circle "V" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>STATISTICS AND PROBABILITY REFRESHER</b>	
<b>VENDOR:</b>	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
<b>LOCATION:</b>	Patuxent River, Building #1489	
<b>COURSE CODE:</b> 486574 486575	<b>DATE:</b> 04-05 December 00 11-12 July 01	<b>NOMINATION DEADLINE:</b> 06 November 00 11 June 01
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This refresher course will cover the areas of frequency and probability distributions; means, variances and standard deviations; discrete and continuous distribution models: binomial, normal, exponential, weibull, etc.; sampling techniques and sample size; curve fitting of data, goodness-of-fit; regression and correlation analysis; and engineering applications including tolerances, reliability, signal processing, and design experiments.	
<b>OBJECTIVE:</b>	Emphasis is placed on how to use math as a tool to set up and interpret engineering problems. Students review representative problems and discuss their results in class.	
<b>AUDIENCE:</b>	This course is intended for those taking technical classes, pursuing either graduate or undergraduate studies, or just desiring a refresher.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$800	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>VIBRATION SPECTRUM ANALYSIS</b> with special emphasis on helicopters, gas turbines and gear boxes	
<b>VENDOR:</b>	Goldman Machinery Dynamics Corporation 6 Mallard Drive West Nyack, NY 10994	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODE:</b> 487221 487223	<b>DATE:</b> 29 January 01-01 February 01 25-28 June 01	<b>NOMINATION DEADLINE:</b> 22 December 00 25 May 01
<b>TIME:</b>	8:00 a.m.-3:30 p.m.	
<b>DESCRIPTION:</b>	Vibration Spectrum Analysis starts with the basics and proceeds through the advanced analysis topics required to perform meaningful analysis of vibration on both fixed wing and rotary wing aircraft or turbine engines. Hands -on demonstrations are used to reinforce topics discussed in formal lectures. Hands-on demonstration topics include averaging, order tracking, synchronous time averaging, signal identification, integration, zoom, transient capture, transfer function/impulse response, correlation and probability functions.	
<b>OBJECTIVE:</b>	The major goal of this seminar is to train the participant in problem solving techniques particular to the area of vibration analysis.	
<b>AUDIENCE:</b>	Engineers and Technicians responsible for the operation/reliability of rotating equipment and the need to perform FFT based spectrum analysis.	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW -NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1400 per person (based on 6 participants)	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	

<b>COURSE TITLE:</b>	<b>WEIBULL / LOG NORMAL ANALYSIS WORKSHOP</b>	
<b>VENDOR:</b>	Dr. Robert Abernethy 536 Oyster Road, North Palm Beach, FL 33408-4328	
<b>LOCATION:</b>	Employee Development Center, Building #2189	
<b>COURSE CODE:</b>	<b>DATE:</b>	<b>NOMINATION DEADLINE:</b>
488139	30 April 01-03 May 01	23 March 01
<b>TIME:</b>	0800-1600	
<b>DESCRIPTION:</b>	This course covers basic Weibull analysis, intensive treatment of The New Weibull Handbook, the four SuperSMITH including hands-on computer tutorial, plus an understanding of system simulation for building system models for reliability, maintainability, safety, spare parts, logistics analysis and warranty-guarantee costs.	
<b>OBJECTIVE:</b>	Upon completion of this course students will be able to : ?? Solve problems using WinSMITH (Windows) or WeibullSMITH (DOS), VISUALSMITH, BiWeibullSMITH & MonteCarloSMITH	
<b>AUDIENCE:</b>	This four-day intensive instructional and hands-on workshop is intended for engineers involved with engine test, evaluation and analysis	
<b>NOMINATIONS:</b>	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS). Contractors may attend on a space available basis.	
<b>COST:</b>	\$1100	
<b>METHOD OF PAYMENT:</b>	Vendor DOES NOT accept credit cards. EMPLOYEE must circle "R" in Block 22, under "Payment" on the Initial Training Request Form.	